REMARKS

This Amendment is in response to the final Office Action mailed on December 8, 2010. Claim 1 is amended editorially. No new matter is added. Claims 1-5 are pending.

Examiner Interview:

Applicants thank Examiners Daniel Huntley and Brian Casler for the telephone Examiner Interview on March 2, 2011. In the interview, claim 1 was discussed with respect to the cited prior art, particularly Hwang (US Patent No. 7,064,596) and Napolitano (US Patent No. 6,679,846). No agreement was reached.

§103 Rejections:

Claims 1-5 are rejected as being unpatentable over Hwang (US Patent No. 7,604,596) in view of Napolitano (US Patent No. 6,679,846). This rejection is traversed.

Claim 1 is directed to an ultrasonic diagnosis apparatus that recites, among other features, a first spatial filter operation portion that is configured to filter the reception beam data converted from the reception beams including the target reception beam and the adjacent plural reception beams, thereby generating the image data at a specified sampling point on one target reception beam. Also, claim 1 recites a filter coefficient calculation portion that is configured to apply the filter coefficient to the reception beam datum converted from the parallel reception beam received in parallel with the target reception beam so as to be smaller than the filter coefficient applied to the reception beam data which is converted from the reception beam other than the parallel reception beam and is symmetrical in positional relationship to the reception beam data with respect to a center at a position of the target reception beam.

The combination of Hwang and Napolitano does not teach or suggest these features. The rejection appears to rely on Hwang for teaching the first spatial filter operation portion of claim 1. However, the rejection merely notes that Hwang teaches spatial filters for received beams including Doppler data and associated variable filter coefficients. Also as acknowledged by the rejection, Hwang does not teach or suggest the use of parallel reception beams received in parallel from a single transmission beam. Thus, Hwang cannot teach or suggest a first spatial filter operation portion that is

configured to filter the reception beam data converted from the reception beams including the target reception beam and the adjacent plural reception beams, thereby generating the image data at a specified sampling point on one target reception beam, as recited in claim 1.

Napolitano does not overcome these deficiencies of Hwang. Particularly, nowhere does Napolitano teach or suggest a first spatial filter operation portion that is configured to filter the reception beam data converted from the reception beams including the target reception beam and the adjacent plural reception beams.

The combination of Hwang and Napolitano also does not teach or suggest the filter coefficient calculation portion of claim 1. The rejection correctly notes that Hwang does not teach a filter coefficient calculation portion, but then relies on column 14 of Napolitano for teaching the filter coefficient calculation portion of claim 1. However, column 14 of Napolitano merely teaches the use of constant filter coefficients or filter coefficients that are varied as a function of range and/or line for performing azimuthal and/or elevation pre-detection spatial filtering (see column 14, lines 23-37 of Napolitano).

Nowhere does Napolitano contemplate a filter coefficient calculation portion that is configured to apply the filter coefficient to the reception beam datum converted from the parallel reception beam received in parallel with the target reception beam so as to be smaller than the filter coefficient applied to the reception beam data which is converted from the reception beam other than the parallel reception beam and is symmetrical in positional relationship to the reception beam data with respect to a center at a position of the target reception beam.

Also, the features describing the filter coefficient calculation portion and the first spatial filter operation portion are not merely method limitations, but further define the structural configuration of the filter coefficient calculation portion and the first spatial filter operation portion.

For at least these reasons claim 1 is not suggested by the combination of Hwang and Napolitano and should be allowed. Claims 2-5 depend from claim 1 and should be allowed for at least the same reasons.

Conclusion:

Applicants respectfully assert that the pending claims are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

Respectfully submitted,

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